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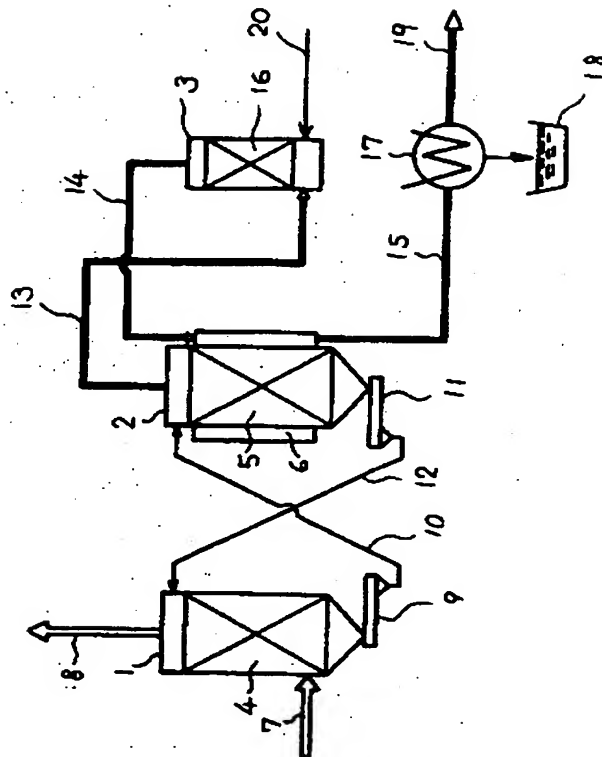
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TITLE : REMOVAL OF SULFUR DIOXIDE IN
EXHAUST GAS



ABSTRACT : PURPOSE: To save heat energy and to reduce an amount of a cooling water for condensing S by a method wherein an adsorbing agent after SO₂ adsorption is heated at a specific temp. and S vapor with a specific temp. generated when desorbed SO₂ is reduced is utilized as a heat source for SO₂ desorption.

CONSTITUTION: SO₂ in an exhaust gas is adsorbed by an adsorbing agent 4 comprising activated coal or semi-coke until near saturated point thereof and above described adsorbing agent 4 is continuously taken out to a desorbing device 2 and heated to 300-400°C by a converting gas 14 with 800-900°C supplied to an external heating portion 6 to discharge adsorbed SO₂ as a concentrated gas 13 and this gas is introduced to a S converter 3. The converter 3 packed with semi-coke 16 or the like is heated to 800-900°C by a fuel 20 and the SO₂ gas 13 is reduced and converted to S vapor, thereafter the converted gas 14 with a temp. of 800-900°C is supplied to the aforementioned heating portion 6. As a result, S vapor is cooled by heat exchanging with the adsorbing agent 4 and an amount of a cooling water in a condenser 17 is reduced as well as a heat source at the desorption tower 2 is economized.

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